

REFERENCES

- Adamson, R., & Fabro, S. (1968). Antitumor activity and other biologic properties of L-asparaginase (NSC-109229)-a review. *Cancer Chemotherapy Reports. Part 1*, 52(6), 617-626.
- Amena, S., Vishalakshi, N., Prabhakar, M., Dayanand, A., & Lingappa, K. (2010). Production, purification and characterization of L-asparaginase from *Streptomyces gulbargensis*. *Brazilian Journal of Microbiology*, 41(1), 173-178. doi: 10.1590/S1517-83822010000100025
- Aparna, C., & Raju, K. J. (2015). Optimization of process parameters for L-asparaginase production by *Aspergillus terreus* MTCC 1782 under solid state fermentation using mixed substrate. *International Journal of Research in Engineering and Technology*, 4(5), 354-360.
- Azmi, W. (2015). Comparative evaluation of different cell disruption methods for the release of L-asparaginase from *Erwinia carotovora* MTCC 1428. *International Journal of Food and Fermentation Technology*, 1(2).
- Bachmeier, K. L., Williams, A. E., Warmington, J. R., & Bang, S. S. (2002). Urease activity in microbiologically-induced calcite precipitation. *Journal of Biotechnology*, 93(2), 171-181. doi: 10.1016/S0168-1656(01)00393-5
- Balakrishnan, N. T., Sakthiselvan, P., & Partha, N. (2012). Antioxidant and antimicrobial efficacies of *Amaranthus polygonoides* and its impact on L-asparaginase production. *African Journal of Biotechnology*, 11(61), 12483-12490. doi: 10.5897/AJB12.098
- Basha, N. S., Rekha, R., Komala, M., & Ruby, S. (2009). Production of extracellular anti-leukaemic enzyme L-asparaginase from marine actinomycetes by solidstate and submerged fermentation: Purification and characterisation. *Tropical Journal of Pharmaceutical Research*, 8(4), 353-360. doi: 10.4314/tjpr.v8i4.45230
- Baskar, G. (2012). Optimization of culture conditions and bench-scale production of L-asparaginase by submerged fermentation of *Aspergillus terreus* MTCC 1782. *Journal of Microbiology and Biotechnology*, 22(7), 923-929.
- Baskar, G. (2013). *Optimization and kinetic modeling of L asparaginase production by submerged fermentation of Aspergillus terreus MTCC 1782*. (Doctoral dissertation, Anna University of Chennai)
- Baskar, G., Dharmendira Kumar, M., Anand Prabu, A., Renganathan, S., & Yoo, C. (2009). Optimization of carbon and nitrogen sources for L-asparaginase production by *Enterobacter aerogenes* using response surface methodology. *Chemical and Biochemical Engineering Quarterly*, 23(3), 393-397.

- Baskar, G., & Renganathan, S. (2009a). Evaluation and screening of nitrogen source for L-asparaginase production by *Aspergillus terreus* MTCC 1782 using Latin Square Design. *Research Journal of Mathematics and Statistics*, 1(2), 55-58.
- Baskar, G., & Renganathan, S. (2009). Production of L-asparaginase from natural substrates by *Aspergillus terreus* MTCC 1782: Effect of substrate, supplementary nitrogen source and L-asparagine. *International Journal of Chemical Reactor Engineering*, 7(1), 1-18.
- Baskar, G., & Renganathan, S. (2009b). Statistical screening of process variables for the production of L-asparaginase from cornflour by *Aspergillus terreus* MTCC 1782 in submerged fermentation. *Indian Journal of Science and Technology*, 2(5), 45-48.
- Batool, T., Makky, E., & Yusoff, M. (2014). *Isolation of L-asparaginase from Natural Waste: Squid Cartilage Bone*. Paper presented at the Malaysia University Conference Engineering Technology.
- Bell, T. L., & Adams, M. A. (2004). Ecophysiology of ectomycorrhizal fungi associated with *Pinus* spp. in low rainfall areas of Western Australia. *Plant Ecology*, 171(1-2), 35-52. doi: 10.1023/B:VEGE.0000029372.78102.9d
- Bhattacharyya, P., Chakrabarti, K., Tripathy, S., Chakraborty, A., Kim, K., & Kim, S. (2007). L-asparaginase and L-glutaminase activities in submerged rice soil amended with municipal solid waste compost and decomposed cow manure. *Journal of Environmental Science and Health Part B*, 42(5), 593-598. doi: 10.1080/03601230701389462
- Boadi, K. O., & Kuitunen, M. (2005). Environmental and health impacts of household solid waste handling and disposal practices in third world cities: the case of the Accra Metropolitan Area, Ghana. *Journal of environmental health*, 68(4), 32.
- Boegl, Z., Ciesarova-Eugen, & K.-Petra. (2006). Impact of L-asparaginase on acrylamide content in potato products. *Journal of Food and Nutrition Research*, 45(4), 141-146.
- Borah, D., Yadav, R., Sangra, A., Shahin, L., & Chaubey, A. K. (2012). Production, purification and process optimization of asparaginase (an anticancer enzyme) from *E. coli*, isolated from sewage water. *Asian Journal of Pharmaceutical and Clinical Research*, 5(3), 202-204.
- Borek, D., Podkowinski, J., Kisiel, A., & Jaskolski, M. (1999). Isolation and characterization of cDNA encoding L-asparaginase from *Lupinus luteus*. *Plant Physiol*, 119, 1568-1570.

- Borkotaky, B., & Bezbaruah, R. (2002). Production and properties of asparaginase from a new *Erwinia* sp. *Folia microbiologica*, 47(5), 473-476. doi: 10.1007/BF02818783
- Broome, J. (1963). Evidence that the L-asparaginase of guinea pig serum is responsible for its antilymphoma effects i. Properties of the L-asparaginase of guinea pig serum in relation to those of the antilymphoma substance. *The Journal of experimental medicine*, 118(1), 99-120. doi: 10.1084/jem.118.1.99
- Bruneau, L., Chapman, R., & Marsolais, F. (2006). Co-occurrence of both L-asparaginase subtypes in *Arabidopsis*: At3g16150 encodes a K⁺-dependent L-asparaginase. *Planta*, 224(3), 668-679. doi: 10.1007/s00425-006-0245-9
- Cappelletti, D., Chiarelli, L. R., Pasquetto, M. V., Stivala, S., Valentini, G., & Scotti, C. (2008). *Helicobacter pylori* L-asparaginase: a promising chemotherapeutic agent. *Biochemical and Biophysical Research Communications*, 377(4), 1222-1226. doi:10.1016/j.bbrc.2008.10.118
- Cedar, H., & Schwartz, J. H. (1968). Production of L-asparaginase II by *Escherichia coli*. *Journal of Bacteriology*, 96(6), 2043-2048.
- Chandra, R. (2014). *Production, purification, characterization and anticancer activity of L-Asparaginase from Bacillus Alcalophilus ATCC 27647*. (Master Thesis, University of Jadavpur, Kolkata, India)
- Clementi, A. (1922). La désamidation enzymatique de l'asparagine chez les différentes espèces animales et la signification physiologique de sa présence dans l'organisme. *Archives Internationales de Physiologie*, 19(4), 369-398. doi: 10.3109/13813452209145156
- Cooney, D., Capizzi, R., & Handschumacher, R. (1970). Evaluation of L-asparagine metabolism in animals and man. *Cancer Research*, 30(4), 929-935.
- Czitrom, V. (1999). One-factor-at-a-time versus designed experiments. *The American Statistician*, 53(2), 126-131.
- Dharmaraj, S. (2011). Study of L-asparaginase production by *Streptomyces noursei* MTCC 10469, isolated from marine sponge *Callyspongia diffusa*. *Iranian Journal of Biotechnology*, 9(2), 102-108.
- Dhevagi, P., & Poorani, E. (2006). Isolation and characterization of L-asparaginase from marine actinomycetes. *Indian Journal of Biotechnology*, 5(4), 514.
- Dutta, S., Ghosh, S., & Pramanik, S. (2015). L-asparaginase and L-glutaminase from *Aspergillus fumigatus* WL002: Production and some physicochemical

- properties. *Applied Biochemistry and Microbiology*, 51(4), 425-431. doi: 10.1134/S0003683815040067
- Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M. B., & Ghasemi, Y. (2014). *Chlorella vulgaris*, a novel microalgal source for L-asparaginase production. *Biocatalysis and Agricultural Biotechnology*, 3(2), 214-217. doi: 10.1016/j.bcab.2013.10.005
- Eisele, N., Linke, D., Bitzer, K., Na'amnieh, S., Nimtz, M., & Berger, R. G. (2011). The first characterized asparaginase from a basidiomycete, *Flammulina velutipes*. *Bioresource Technology*, 102(3), 3316-3321. doi: 10.1016/j.biortech.2010.10.098
- El-Bessoumy, A. A., Sarhan, M., & Mansour, J. (2004). Production, isolation, and purification of L-asparaginase from *Pseudomonas aeruginosa* 50071 using solid-state fermentation. *BMB Reports*, 37(4), 387-393. doi: 10.5483/BMBRep.2004.37.4.387
- Elizebeth, T., Narendra, M. C., Athira, R., Sheik Tanweer Ahmed, S. K. G., Siddalingeshwara, K., & Pramod, T. (2014). Studies on L-asparaginase production from *Pseudomonas stutzeri* strain through solid state fermentation from various agro residues. *International Journal of Comprehensive Research in Biological Sciences*, 1(1), 1-8.
- Elshafei, A. M., & El-Ghonemy, D. H. (2015). Screening and media optimization for enhancing L-asparaginase production, an anticancer agent, from different filamentous fungi in solid state fermentation. *British Biotechnology Journal*, 9(3), 1-15.
- Furth, O. V., & Friedmann, M. (1910). Über die verbreitung asparaginspaltender organfermente. *Biochem Z*, 26, 435-440.
- Gallagher, S. R. (2007). One-dimensional SDS gel electrophoresis of proteins. *Current Protocols in Cell Biology*, 6(1), 1-6.1. 38. doi: 10.1002/0471143030.cb0601s37
- Ganeshan, S., Babu, S. M., Balasubramaniam, A., Peramachi, P., & Perumal, V. (2015). Industrial effluent as a substrate for glutaminase free L-asparaginase production from *Pseudomonas plecoglossicida* strain RS1; Media optimization, enzyme purification and its characterization. *RSC Advances*, 5, 48729-48738. doi: 10.1039/C5RA05507E
- Ghosh, S., Murthy, S., Govindasamy, S., & Chandrasekaran, M. (2013). Optimization of L-asparaginase production by *Serratia marcescens* (NCIM 2919) under solid state fermentation using coconut oil cake. *Sustainable Chemical Processes*, 1(1), 9. doi: 10.1186/2043-7129-1-9

- Ghoshoon, M. B., & Raee, M. J. (2008). An optimized medium for screening of L-asparaginase production by *Escherichia coli*. *American Journal of Biochemistry and Biotechnology*, 4(4), 422-424.
- Goswami, R., Hegde, K., & Veeranki, V. D. (2014). Batch, fed batch production and characterization of glutaminase free L-asparaginase II of *Pectobacterium carotovorum* MTCC 1428 in *Escherichia coli*. *Advances in Microbiology*, 4, 667-680. doi: 10.4236/aim.2014.410072
- Gurunathan, B., & Sahadevan, R. (2011). Production of L-asparaginase from natural substrates by *Aspergillus terreus* MTCC 1782: Optimization of carbon source and operating conditions. *International Journal of Chemical Reactor Engineering*, 9(1). doi: 10.1515/1542-6580.2479
- Gurung, N., Ray, S., Bose, S., & Rai, V. (2013). A broader view: Microbial enzymes and their relevance in industries, medicine, and beyond. *BioMed research international*, 2013. doi: 10.1155/2013/329121
- Hadapsar, P. (2010). L—asparaginase from Coliform Bacteria. *Asian Journal of Biotechnology*, 2(3), 169-177.
- Heeschen, V., Matlok, J., Schrader, S., & Rudolph, H. (1996). Asparagine catabolism in bryophytes: Purification and characterization of two L-asparaginase isoforms from *Sphagnum fallax*. *Physiologia Plantarum*, 97(2), 402-410. doi: 10.1034/j.1399-3054.1996.970227.x
- Heinemann, B., & Howard, A. J. (1969). Production of tumor-inhibitory L-asparaginase by submerged growth of *Serratia marcescens*. *Applied Microbiology*, 18(4), 550-554.
- Hosamani, R., & Kaliwal, B. (2011a). Isolation, molecular identification and optimization of fermentation parameters for the production of L-asparaginase, an anti cancer agent by *Fusarium equiseti*. *International Journal of Microbiology Research*, 3(2), 108-119.
- Hosamani, R., & Kaliwal, B. (2011b). L-asparaginase-an anti tumor agent production by *Fusarium equiseti* using solid state fermentation. *International Journal of Drug Discovery*, 3(2), 88-99.
- Hosamani, R., & Kaliwal, B. (2011c). L-asparaginase an anti-tumor agent production by *Fusarium equiseti* using solid state fermentation. *International Journal of Drug Discovery*, 3(2), 88-99.
- Hymavathi, M., Sathish, T., Brahmaiah, P., & Prakasham, R. (2010). Impact of carbon and nitrogen sources on L-asparaginase production by isolated *Bacillus*

circulans (MTCC 8574): Application of saturated Plackett-Burman design. *Chemical and Biochemical Engineering Quarterly*, 24(4), 473-480.

- Hymavathi, M., Sathish, T., Rao, C. S., & Prakasham, R. (2009). Enhancement of L-asparaginase production by isolated *Bacillus circulans* (MTCC 8574) using response surface methodology. *Applied Biochemistry and Biotechnology*, 159(1), 191-198. doi: 10.1007/s12010-008-8438-2
- Imada, A., Igarasi, S., Nakahama, K., & Isono, M. (1973). Asparaginase and glutaminase activities of micro-organisms. *Journal of General Microbiology*, 76(1), 85-99. doi: 10.1099/00221287-76-1-85
- Jayaramu, M., Hemalatha, N., Rajeshwari, C., Siddalingeswara, K., Mohsin, S., & Dutt, N. (2010). A novel approach for detection, confirmation and optimization of L-asparaginase from *Emericella Nidulans*. *Current Pharma Research*, 1(1), 20-24.
- Jha, S. K., Pasrija, D., Sinha, R. K., Singh, H. R., Nigam, V. K., & Vidyarthi, A. (2012). Microbial L-Asparaginase: a review on current scenario and future prospects. *International Journal of Pharmaceutical Sciences and Research*, 3(9), 3076-3090.
- Jones, G. E., & Mortimer, R. K. (1973). Biochemical properties of yeast L-asparaginase. *Biochemical Genetics*, 9(2), 131-146. doi: 10.1007/BF00487443
- Kalyanasundaram, I., Nagamuthu, J., Srinivasan, B., Pachayappan, A., & Muthukumarasamy, S. (2015). Production, purification and characterisation of extracellular L-asparaginase from salt marsh fungal endophytes. *World Journal of Pharmacy and Pharmaceutical Sciences*, 4(3), 663-677.
- Karanam, S. K., & Medicherla, N. R. (2010). Application of Doehlert experimental design for the optimization of medium constituents for the production of L-asparaginase from Palm Kernal cake (*Elaeis guineensis*). *Journal Microbial Biochemical Technology*, 2, 7-12.
- Kattimani, L., Amena, S., Nandareddy, V., & Mujugond, P. (2009). Immobilization of *Streptomyces gulbargensis* in Polyurethane Foam: A promising technique for L-asparaginase production on. *Iranian Journal of Biotechnology*, 7(4), 199-204.
- Kavitha, A., & Vijayalakshmi, M. (2010). Optimization and purification of L-asparaginase produced by *Streptomyces tendae* TK-VL_333. *Zeitschrift für Naturforschung C*, 65(7-8), 528-531. doi: 10.1515/znc-2010-7-817
- Kavitha, A., & Vijayalakshmi, M. (2012). A Study on L-asparaginase of *Nocardia levis* MK-VL_113. *The Scientific World Journal*, 2012(2012), 1-5. doi: 10.1100/2012/160434

- Kenari, S. L. D., Alemzadeh, I., & Maghsodi, V. (2011). Production of L-asparaginase from *Escherichia coli* ATCC 11303: Optimization by response surface methodology. *Food and Bioproducts Processing*, 89(4), 315-321. doi: 10.1016/j.fbp.2010.11.002
- KG, Siddalingeshwara., & Lingappa, K. Production and characterization of L-asparaginase-A tumour inhibitor. *International Journal of Pharmtech Research*, 3(1), 314-319.
- Khalaf, Z. A., Al-Ani, N. K., & Jasim, H. M. Optimum conditions for asparaginase extraction from *Pisum sativum* subsp. Jof. *Iranian Journal of Plant Physiology*, 2(4), 517-521.
- Khamna, S., Yokota, A., & Lumyong, S. (2009). L-asparaginase production by actinomycetes isolated from some Thai medicinal plant rhizosphere soils. *International Journal of Integrative Biology*, 6(1), 22-26.
- Kidd, J. G. (1953). Regression of transplanted lymphomas induced *in vivo* by means of normal guinea pig serum i. Course of transplanted cancers of various kinds in mice and rats given guinea pig serum, horse serum, or rabbit serum. *The Journal of experimental medicine*, 98(6), 565-582. doi: 10.1084/jem.98.6.565
- Kirk, O., Borchert, T. V., & Fuglsang, C. C. (2002). Industrial enzyme applications. *Current Opinion in Biotechnology*, 13(4), 345-351. doi: 10.1016/S0958-1669(02)00328-2
- Kotzia, G. A., & Labrou, N. E. (2005). Cloning, expression and characterisation of *Erwinia carotovora* L-asparaginase. *Journal of Biotechnology*, 119(4), 309-323. doi: 10.1016/j.jbiotec.2005.04.016
- Kullas, A. L., McClelland, M., Yang, H.-J., Tam, J. W., Torres, A., Porwollik, S., . . . Andrews-Polymenis, H. (2012). L-asparaginase II produced by *Salmonella typhimurium* inhibits T cell responses and mediates virulence. *Cell Host and Microbe*, 12(6), 791-798. doi: 10.1016/j.chom.2012.10.018
- Kumar, N. M., Ramasamy, R., & Manonmani, H. (2013). Production and optimization of L-asparaginase from *Cladosporium* sp. using agricultural residues in solid state fermentation. *Industrial Crops and Products*, 43, 150-158. doi: 10.1016/j.indcrop.2012.07.023
- Kumar, S., Dasu, V. V., & Pakshirajan, K. (2010). Localization and production of novel L-asparaginase from *Pectobacterium carotovorum* MTCC 1428. *Process Biochemistry*, 45(2), 223-229. doi: 10.1016/j.procbio.2009.09.011

- Kumar, S., Dasu, V. V., & Pakshirajan, K. (2011). Purification and characterization of glutaminase-free L-asparaginase from *Pectobacterium carotovorum* MTCC 1428. *Bioresource Technology*, 102(2), 2077-2082. doi: 10.1016/j.biortech.2010.07.114
- Lang, S. (1904). Über desamidierung im Tierkörper. *Beitr chem Physiol Pathol*, 5, 321-345.
- Lapmak, K., Lumyong, S., Thongkuntha, S., Wongputtisin, P., & Sardud, U. (2010). L-asparaginase production by *Bipolaris* sp. BR438 isolated from brown rice in Thailand. *Chiang Mai Journal of Science*, 37(1), 160-164.
- Liu, F., & Zajic, J. (1972). L-asparaginase synthesis by *Erwinia aroideae*. *Applied Microbiology*, 23(3), 667-668.
- Lough, T. J., Reddington, B. D., Grant, M. R., Hill, D. F., Reynolds, P. H., & Farnden, K. J. (1992). The isolation and characterisation of a cDNA clone encoding L-asparaginase from developing seeds of lupin (*Lupinus arboreus*). *Plant Molecular Biology*, 19(3), 391-399. doi: 10.1007/BF00023386
- Lowry, O. H., Rosebrough, N. J., Farr, A. L., & Randall, R. J. (1951). Protein measurement with the Folin phenol reagent. *The Journal of Biological Chemistry*, 193(1), 265-275.
- Mahajan, R. V., Saran, S., Kameswaran, K., Kumar, V., & Saxena, R. (2012). Efficient production of L-asparaginase from *Bacillus licheniformis* with low-glutaminase activity: Optimization, scale up and acrylamide degradation studies. *Bioresource Technology*, 125, 11-16. doi: 10.1016/j.biortech.2012.08.086
- Makky, E. A., Loh, Y. C., & Karim, M. R. (2014). Purification and partial characterization of a low molecular weight L-asparaginase produced from corn cob waste. *Biocatalysis and Agricultural Biotechnology*, 3(4), 265-270. doi: 10.1016/j.bcab.2014.07.004
- Maladkar, N., Singh, V., & Naik, S. (1992). Fermentative production and isolation of L-asparaginase from *Erwinia carotovora*, EC-113. *Hindustan Antibiotics Bulletin*, 35(1-2), 77-86.
- Manna, S., Sinha, A., Sadhukhan, R., & Chakrabarty, S. (1995). Purification, characterization and antitumor activity of L-asparaginase isolated from *Pseudomonas stutzeri* MB-405. *Current Microbiology*, 30(5), 291-298. doi: 10.1007/BF00295504
- Martin, J. (1989). Molecular genetics of amino acid-producing corynebacteria.

- Mashburn, L. T., & Wriston, J. C. (1964). Tumor inhibitory effect of L-asparaginase from *Escherichia coli*. *Archives of Biochemistry and Biophysics*, 105(2), 450-453.
- Matthews, W., & Brown, H. (1973). Isolation of two L-asparaginases from guinea pig liver. *Enzyme*, 17(5), 276-286.
- Mesas, J. M., Gil, J. A., & Martín, J. F. (1990). Characterization and partial purification of L-asparaginase from *Corynebacterium glutamicum*. *Journal of General Microbiology*, 136(3), 515-519. doi: 10.1099/00221287-136-3-515
- Mishra, A. (2006). Production of L-asparaginase, an anticancer agent, from *Aspergillus niger* using agricultural waste in solid state fermentation. *Applied Biochemistry and Biotechnology*, 135(1), 33-42. doi: 10.1385/ABAB:135:1:33
- Moorthy, V., Ramalingam, A., Sumantha, A., & Shankaranaya, R. T. (2010). Production, purification and characterisation of extracellular L-asparaginase from a soil isolate of *Bacillus* sp. *African Journal of Microbiology Research*, 4(18), 1862-1867.
- Mukherjee, J., Majumdar, S., & Scheper, T. (2000). Studies on nutritional and oxygen requirements for production of L-asparaginase by *Enterobacter aerogenes*. *Applied Microbiology and Biotechnology*, 53(2), 180-184. doi: 10.1007/s002530050006
- Murali, T. (2011). L-asparaginase from marine derived fungal endophytes of seaweeds. *Mycosphere*, 147-155.
- Nageswara, S., PV, K., Guntuku, G. S., & Tadimalla, P. (2014). Production of L-asparaginase by solid state fermentation using marine fungus. *BMR Biochemistry*, 1(1), 1-9.
- Narayana, K., Kumar, K., & Vijayalakshmi, M. (2008). L-asparaginase production by *Streptomyces albidoflavus*. *Indian Journal of Microbiology*, 48(3), 331-336. doi: 10.1007/s12088-008-0018-1
- Narta, U., Roy, S., Kanwar, S. S., & Azmi, W. (2011). Improved production of L-asparaginase by *Bacillus brevis* cultivated in the presence of oxygen-vectors. *Bioresource Technology*, 102(2), 2083-2085. doi: 10.1016/j.biortech.2010.07.118
- Neto, D. C., Buzato, J. B., & Borsato, D. (2006). L-asparaginase production by *Zymomonas mobilis* during molasses fermentation: Optimization of culture conditions using factorial design. *Acta Scientiarum. Technology*, 28(2), 151-153.

- Oettgen, H., Old, L., Boyse, E., Campbell, H., Philips, F., Clarkson, B., . . . Kim, J. H. (1967). Inhibition of leukemias in man by L-asparaginase. *Cancer Research*, 27(12), 2619.
- Oliveira, E. M., Carvajal, E., & Bon, E. P. (1999). *L-asparaginase II of Saccharomyces cerevisiae*. Paper presented at the Twentieth Symposium on Biotechnology for Fuels and Chemicals.
- Oza, V. P., Parmar, P. P., Patel, D. H., & Subramanian, R. (2011). Cloning, expression and characterization of L-asparaginase from *Withania somnifera* L. for large scale production. 3 *Biotech*, 1(1), 21-26. doi: 10.1007/s13205-011-0003-y
- Oza, V. P., Trivedi, S. D., Parmar, P. P., & Subramanian, R. (2009). *Withania somnifera* (Ashwagandha): A novel source of L-asparaginase. *Journal of Integrative Plant Biology*, 51(2), 201-206. doi: 10.1111/j.1744-7909.2008.00779.x
- Patro, K. K. R., Satpathy, S., & Gupta, N. (2011). Evaluation of some fungi for L-asparaginase production. *Indian Journal of Fundamental and Applied Life Sciences*, 1(4), 219-221.
- Patro, K. R., & Gupta, N. (2012). Extraction, purification and characterization of L-asparaginase from *Penicillium* sp. by submerged fermentation. *International Journal for Biotechnology and Molecular Biology Research*, 3(3), 30-34. doi: 10.5897/IJBMBR11.066
- Paul, J. (1982). Isolation and characterization of a *Chlamydomonas* L-asparaginase. *Biochemical Journal*, 203, 109-115. doi: 10.1042/bj2030109
- Pawar, P., Joshi, K., Khobragade, R., Deshmukh, A., & Adhapure, N. (2014). Screening, optimization of medium and solid state fermentation for l-asparaginase production. *Global Journal of Bio-science and Biotechnology*, 3(1), 91-96.
- Pedreschi, F., Kaack, K., & Granby, K. (2004). Reduction of acrylamide formation in potato slices during frying. *LWT-Food Science and Technology*, 37(6), 679-685. doi: 10.1016/j.lwt.2004.03.001
- Plomp, P. J. A. M., De Boer, L., Van Rooijen, R. J., & Meima, R. B. (2012). Asparaginase and its use in food production: Google Patents.
- Pradeep, S., Mahmood, R., & Jagadeesh, K. (2010). Screening and characterization of L-asparaginase producing microorganisms from tulsi (*Ocimum sanctum*. L). *Karnataka Journal of Agricultural Sciences*, 23(4), 660-661.

- Pradhan, B., Dash, S. K., & Sahoo, S. (2013). Optimization of some physical and nutritional parameters for the production of L-asparaginase by isolated thermophilic *Pseudomonas aeruginosa* strain F1. *Biosciences Biotechnology Research Asia*, 10(1), 389-395.
- Pradhan, B., Dash, S. K., & Sahoo, S. (2013). Screening and characterization of extracellular L-asparaginase producing *Bacillus subtilis* strain hswx88, isolated from Taptapani hot spring of Odisha, India. *Asian Pacific Journal of Tropical Biomedicine*, 3(12), 936-941. doi: 10.1016/S2221-1691(13)60182-3
- Prakasham, R., Rao, C., Rao, R. S., Lakshmi, G. S., & Sarma, P. (2007). L-asparaginase production by isolated *Staphylococcus* sp.-6A: Design of experiment considering interaction effect for process parameter optimization. *Journal of Applied Microbiology*, 102(5), 1382-1391. doi: 10.1111/j.1365-2672.2006.03173.x
- Raetz, E. A., & Salzer, W. L. (2010). Tolerability and efficacy of L-asparaginase therapy in pediatric patients with acute lymphoblastic leukemia. *Journal of Pediatric Hematology/Oncology*, 32(7), 554-563. doi: 10.1097/MPH.0b013e3181e6f003
- Raha, S., Roy, S., Dey, S., & Chakrabarty, S. (1990). Purification and properties of an L-asparaginase from *Cylindrocarpon obtusisporum* MB-10. *Biochemistry International*, 21(6), 987-1000.
- Rai, P. S. (2013). Study on production, purification and characterisation of L-asparaginase from *Escherichia coli* and *Pseudomonas aeruginosa*. *International Journal of Pharmaceutical, Chemical and Biological Sciences*, 3(3), 565-570.
- Ramya, L., Doble, M., Rekha, V., & Pulicherla, K. (2012). L-asparaginase as potent anti-leukemic agent and its significance of having reduced glutaminase side activity for better treatment of acute lymphoblastic leukaemia. *Applied Biochemistry and Biotechnology*, 167(8), 2144-2159. doi: 10.1007/s12010-012-9755-z
- Rani, S. A., Sundaram, L., & Vasantha, P. B. (2012). Isolation and screening of L-asparaginase producing fungi from soil samples. *International Journal of Pharmacy and Pharmaceutical Sciences*, 4(1), 279-282.
- Sanjeeviroyar, A., Rajendran, A., Muthuraj, M., Basha, K. M., & Thangavelu, V. (2010). Sequential optimization and kinetic modeling of L-asparaginase production by *Pectobacterium carotovorum* in submerged fermentation. *Asia-Pacific Journal of Chemical Engineering*, 5(5), 743-755. doi: 10.1002/apj.401

- Sarquis, M. I. d. M., Oliveira, E. M. M., Santos, A. S., & Costa, G. L. d. (2004). Production of L-asparaginase by filamentous fungi. *Memorias do Instituto Oswaldo Cruz*, 99(5), 489-492. doi: 10.1590/S0074-02762004000500005
- Selvam, K., & Vishnupriya, B. (2013). Partial purification and cytotoxic activity of L-asparaginase from *Streptomyces acrimycini* NGP. *International Journal of Research in Pharmaceutical and Biomedical Sciences*, 4(3), 859-869.
- Shibayama, K., Takeuchi, H., Wachino, J. i., Mori, S., & Arakawa, Y. (2011). Biochemical and pathophysiological characterization of *Helicobacter pylori* asparaginase. *Microbiology and Immunology*, 55(6), 408-417. doi: 10.1111/j.1348-0421.2011.00333.x
- Shrivastava, A., Khan, A. A., Khurshid, M., Kalam, M. A., Jain, S. K., & Singhal, P. K. (2016). Recent developments in L-asparaginase discovery and its potential as anticancer agent. *Critical Reviews in Oncology/Hematology*, 100, 1-10. doi: 10.1016/j.critrevonc.2015.01.002
- Sieciechowicz, K. A., & Ireland, R. J. (1989). Isolation and properties of an asparaginase from leaves of *Pisum sativum*. *Phytochemistry*, 28(9), 2275-2279. doi: 10.1016/S0031-9422(00)97967-6
- Singh, Y., & Srivastava, S. (2012). *L-asparaginase Production by a new isolate Bacillus aryabhatai strain ITBHU02 in solid state culture*. Paper presented at the 1st International Conference on Biosciences and Bioengineering: A collaborative Approach.
- Soniyamby, A., Lalitha, S., Praveesh, B., & Priyadarshini, V. (2011). Isolation, production and anti tumor activity of L-asparaginase of *Penicillium* sp. *International Journal of Microbiological Research*, 2, 38-42.
- Sørensen, S. P. L. (1909). Über die Messung und die Bedeutung der Wasserstoffionenkonzentration bei enzymatischen Prozessen. *Enzymstudien*, (21), 131-200
- Sreenivasulu, V., Jayaveera, K., & Rao, P. M. (2009a). Optimization of process parameters for the production of L-asparaginase from an isolated fungus. *Research Journal of Pharmacognosy and Phytochemistry*, 1(1), 30-34.
- Sreenivasulu, V., Jayaveera, K., & Rao, P. M. (2009b). Solid-state fermentation for the production of L-asparaginase by *Aspergillus* sp. *Research Journal of Pharmacognosy and Phytochemistry*, 1(1), 21-25.
- Stadler, R. H., Robert, F., Riediker, S., Varga, N., Davidek, T., Devaud, S., . . . Blank, I. (2004). In-depth mechanistic study on the formation of acrylamide and other

- vinylogous compounds by the Maillard reaction. *Journal of Agricultural and Food Chemistry*, 52(17), 5550-5558. doi: 10.1021/jf0495486
- Suchý, P., Straková, E., Herzig, I., Steinhäuser, L., Kralík, G., & Zapletal, D. (2009). Chemical composition of bone tissue in broiler chickens intended for slaughter. *Czech Journal of Animal Science*, 54(7), 324-330.
- Sudhir, A. P., Dave, B. R., Trivedi, K. A., & Subramanian, R. B. (2012). Production and amplification of an L-asparaginase gene from actinomycete isolate *Streptomyces* ABR2. *Annals of Microbiology*, 62(4), 1609-1614. doi: 10.1007/s13213-011-0417-0
- Sundaramoorthi, C., & Dharamsi, A. Evaluation of bioparameters in the production of l-asparaginase from marine thermophilic fungal isolate *Alternaria solani* and its immobilization studies. *International Journal of Pharmaceutical Research and Development*, 6(9), 32-38.
- Sunitha, M., Ellaiah, P., & Devi, R. B. (2010). Screening and optimization of nutrients for L-asparaginase production by *Bacillus cereus* MNTG-7 in SmF by plackett-burmann design. *African Journal of Microbiology Research*, 4(4), 297-303.
- Thandeeswaran, M., Mahendran, R., Kiran, K. G., Nawaz, K. A., Palaniswamy, M., & Jayaraman, A. (2016). Screening and production of anticarcinogenic enzyme from *Escherichia coli* CTLS20: L-asparaginase. *International Journal of Pharmacy and Pharmaceutical Sciences*, 8(3), 244-248.
- Theantana, T., Hyde, K., & Lumyong, S. (2007). Asparaginase production by endophytic fungi isolated from some Thai medicinal plants. *KMITL Science Technology Journal*, 7(1), 13-18.
- Tippani, R., & Sivadevuni, G. (2014). Nutritional factors effecting the production of L-asparaginase by the *Fusarium* sp. *African Journal of Biotechnology*, 11(15), 3692-3696. doi: 10.5897/AJB10.2355
- Tosa, T., Sano, R., Yamamoto, K., Nakamura, M., Ando, K., & Chibata, I. (1971). L-asparaginase from *Proteus vulgaris*. *Applied Microbiology*, 22(3), 387-392.
- Uppuluri, K. B., Dasari, V., Kumar, R., Sajja, V., Jacob, A. S., & Sri Rami Reddy, D. (2013). Optimization of L-asparaginase production by isolated *Aspergillus niger* C4 from sesame (black) oil cake under SSF using Box–Behnken design in column bioreactor. *International Journal of Chemical Reactor Engineering*, 11(1), 103-109. doi: 10.1515/ijcre-2012-0064
- Varalakshmi, V., & Raju, J. (2013). Optimization of L-asparaginase production by *Aspergillus terreus* MTCC 1782 using bajra seed flour under solid state

fermentation. *International Journal of Research in Engineering and Technology*, 2(9), 121-129.

Venil, C., & Lakshmanaperumalsamy, P. (2009). Solid state fermentation for production of L-asparaginase in rice bran by *Serratia marcescens* SB08. *The Internet Journal of Microbiology*, 7(1), 1-5.

Venil, C. K., Nanthakumar, K., Karthikeyan, K., & Lakshmanaperumalsamy, P. (2009). Production of L-asparaginase by *Serratia marcescens* SB08: Optimization by response surface methodology. *Iranian Journal of Biotechnology*, 7(1), 10-18.

Verma, N., Kumar, K., Kaur, G., & Anand, S. (2007a). E. coli K-12 asparaginase-based asparagine biosensor for leukemia. *Artificial Cells, Blood Substitutes, and Biotechnology*, 35(4), 449-456. doi: 10.1080/10731190701460358

Verma, N., Kumar, K., Kaur, G., & Anand, S. (2007b). L-asparaginase: a promising chemotherapeutic agent. *Critical Reviews in Biotechnology*, 27(1), 45-62. doi: 10.1080/07388550601173926

Vi Vien, C., Batool, T., Essam, A. M., Nina, S., & Yusoff, M. (2016). Production of L-asparaginase from natural substrates by *Escherichia coli* ATCC 10536 and comparison of physiology parameters. *ARPN Journal of Engineering and Applied Sciences*, 11(16), 9680-9684.

Warangkar, S. C., & Khobragade, C. N. (2009). Purification, characterization, and effect of thiol compounds on activity of the *Erwinia carotovora* L-asparaginase. *Enzyme Research*, 2010, 1-10. doi: 10.4061/2010/165878

Wriston, J., & Yellin, T. (1973). L-asparaginase: a review. *Advances in Enzymology and Related Areas Molecular Biology*, 39, 185-248.

Zia, M. A. Z. A., Bashir, R., Ahmed, I., & Iftikhar, T. (2013). Production of L-asparaginase from *Aspergillus niger* using agro wastes by-products in submerged fermentation process. *Jurnal Teknologi*, 62(2), 47-51.